

CLAIMS

1. An image-forming apparatus comprising:

5 a photosensitive member on which an electrostatic latent image is produced;

scuff rollers that move recording paper along a transfer path;

10 a tractor disposed upstream of the transfer path from the scuff rollers, the tractor moving the recording paper at a predetermined transfer speed;

back-tension rollers disposed upstream from the tractor, the back-tension rollers exerting a tension on the recording paper; and

15 a speed controller that adjusts a transfer speed of the recording paper;

20 wherein the speed controller makes greater a circumferential speed of the back-tension rollers than the transfer speed by the tractor during a period after the recording paper is started to move along the transfer path and before image-printing is begun.

2. The apparatus according to claim 1, wherein the speed controller makes smaller the circumferential speed of the back-tension rollers than the transfer speed by the tractor after the image-printing is begun.

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3. The apparatus according to claim 2, further comprising a transfer charger for transferring a toner image onto the recording paper, wherein the speed controller makes smaller the circumferential speed of the back-tension rollers than the transfer speed by the tractor after a predetermined period of time passes since a beginning of transfer by the transfer charger.

4. An image-forming apparatus comprising:

10 an image-forming unit that prints an image on recording paper;

scuff rollers that move the recording paper along a transfer path;

15 a tractor disposed upstream of the transfer path from the scuff rollers, the tractor moving the recording paper at a predetermined transfer speed;

back-tension rollers disposed upstream from the tractor for exerting a tension on the recording paper; and

20 a pressure controller that adjusts a pressing force acting on the recording paper;

wherein the pressure controller prevents the back-tension rollers from exerting a pressing force on the recording paper during a period after the recording paper is started to move along the transfer path and before image-printing is begun.

5. The apparatus according to claim 4, wherein the pressure controller controls the back-tension rollers after the image-printing is begun, so that the back-tension rollers exert a pressing force on the recording paper.

6. The apparatus according to claim 4, further comprising a transfer charger for transferring a toner image onto the recording paper, wherein the pressure controller causes the back-tension rollers to exert a pressing force on the recording paper after a predetermined period of time passes since a beginning of transfer by the transfer charger.

7. The apparatus according to claim 4, further comprising a mechanism for changing a position of the back-tension rollers, wherein the pressure controller controls the position-changing mechanism for causing the back-tension rollers to selectively exert a pressing force on the recording paper.

8. The apparatus according to claim 7, wherein the back-tension rollers include a drive roller and a follower roller which faces the drive roller and is moved by the position-changing mechanism.

9. An image-forming apparatus comprising:

an image-forming unit including a photosensitive member on which an electrostatic latent image is produced;

5 scuff rollers that move recording paper along a transfer path;

a tractor disposed upstream of the transfer path from the scuff rollers, the tractor moving the recording paper along the transfer path at a predetermined transfer
10 speed;

back-tension rollers disposed upstream from the tractor for exerting a tension on the recording paper; and

a pull controller that adjusts a pulling force
15 acting on the recording paper;

wherein the pull controller makes greater a pulling force of the scuff rollers than a pulling force of the back-tension rollers during a period after the recording paper is started to move along the transfer path and
20 before image-printing is begun.

10. The apparatus according to claim 9, wherein the pull controller makes greater a sum of the pulling force of the scuff rollers and pulling force of the photosensitive
25 member than the pulling force of the back-tension rollers after the image-printing is begun.

11. The apparatus according to claim 9, wherein the pull controller makes greater the pulling force of the scuff rollers during a period after the recording paper is started to move along the transfer path and before image-
5 printing is begun than after the image-forming is begun.

12. The apparatus according to claim 9, further comprising a transfer charger for transferring a toner image onto the recording paper, wherein the pull
10 controller makes greater a sum of the pulling force of the scuff rollers and the pulling force of the photosensitive member than the pulling force of the back-tension rollers after a predetermined period of time passes since a beginning of transfer by the transfer
15 charger.

13. The apparatus according to claim 9, further comprising a pressure adjusting mechanism for the scuff rollers, wherein the pull controller controls the
20 pressure adjusting mechanism, thereby changing the pressing force of the scuff rollers acting on the recording paper.

14. The apparatus according to claim 13, wherein the
25 scuff rollers include a drive roller and a follower roller which faces the drive roller and is associated with the pressure adjusting mechanism.

15. The apparatus according to claim 12, wherein said predetermined period of time is determined depending on a forward pulling force of the photosensitive member acting on the recording paper.